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10/511,277	10/21/2004	Hiromu Ueshima	100341-00054	6411

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EXAMINER	
HOEL, MATTHEW D	
ART UNIT	PAPER NUMBER
3714	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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IPMatters@arentfox.com
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Office Action Summary	Application No.	Applicant(s)	
	10/511,277	UESHIMA, HIROMU	
	Examiner	Art Unit	
	Matthew D. Hoel	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 6-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 6-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on ___ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 6, 7, 10, 11, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Togami (U.S. patent 6,394,897 B1) in view of Tosaki, et al. (U.S. patent 6,312,335 B1) and Saikawa, et al. (U.S. patent 6,746,331 B1).

4. As to Claim 1: '897 outlines all of the limitations of Claim 1, but lacks the claimed input device, a judgment unit that determines that the current position is out of ball-strikable rang, and a second calculation unit for calculating an initial speed vector of the ball after there has been a swing. '897 teaches a game machine displaying a ball on a monitor screen through execution of a game program in which a CPU player controlled by a computer program plays against the player (Abst.; 11:59-63). '897 has a first

calculation circuit for calculating a predicted return position of the ball returned by the CPU player (Fig. 13, step 101; 12:43-58). '897 has a judgment circuit for judging whether a current position of the player is in a ball strikable range of the player (Fig. 13, determines whether the player is within "strikable" distance (as defined by the applicant by determining first which player character is the most suitable for intercepting the volleyball (S106) in relation to the volleyball's determined landing position (S102) and moving the player character to the volleyball's determined landing position (S110) if the player is greater than a successful receiving distance (S109) from the volleyball's determined landing position). '897 has a ball striking position movement circuit for automatically moving a ball striking position of the player to be approximated to the predicted return position in response to a negative judgment by the judgment circuit (Fig. 13, Claims 5 & 6). '335, however, discusses a game system including a game machine and an input device under which a player plays a game using the input device, the input devise comprising an acceleration sensor for generating an acceleration correlation signal when the player actually swings the input device in a real space (Abst.; 16:15-55; 17:36-43), and a transmission unit for transmitting the generated acceleration correlation signal to the game machine (Fig. 2a, 5:40-53). '335 also has a swing detection circuit for detecting whether the input device has actually been swung or not (16:35-48). One of ordinary skill in the art at the time the invention was made would have been motivated to apply the input device of '335 to the game of '897. Tennis as outlined in '335 and volleyball as outlined in '335 are analogous games in that each involves opposing individuals or teams volleying a ball back and forth over a net,

with the intent of keeping the volley going as long as possible. A player or team loses a round if he/she or they let the ball hit the floor on their side of the court or serve it out of bounds to the other player's side. '335 teaches the input device applied to the game of tennis as well as volleyball (17:35-43). The advantage of this combination is to provide a more realistic input for the game by using controllers, which imitate the player's actual motions in the sports games, as opposed to simply using the standard controllers outlined in '897 (Fig. 1). These standard controllers have the disadvantage of requiring players to memorize, which keys correspond to which actions, which is not always intuitive. Having the input device mimic the player's natural motions also makes the game easier to learn.

5. '331, however, teaches a judgment unit that determines that the current position is out of ball-strikable range (step 320, Fig. 5; 8:28-39), and a second calculation unit for calculating an initial speed vector of the ball after there has been a swing (6:53-62, 8:40-48; steps 328, 330, & 332, Fig. 5) in which the position of the ball exists in a ball-receivable range that is three-dimensionally defined (7:7-16, Fig. 3). The judgment unit of '331 applied to the accelerometers of '335 would create a second calculation unit for calculating an initial speed vector of the ball after receiving when the swing detection unit has detected a swing in which the position of the ball exists in a ball receivable range that is three-dimensionally defined, from a position of the ball and acceleration of the input device according to the acceleration correlation signal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the judgment unit, three-dimensional space, and speed vector calculation of

‘331 to the combination of ‘897 and ‘335. ‘331 is meant to be applied to tennis (3:17) which is analogous art to ‘897 (volleyball) in that both games are sports in which a ball is volleyed over a net, so the plays of the games are very similar. '897 hints at, but does not explicitly disclose (Figs. 2 to 6, three-dimensional perspective), the three-dimensional space disclosed by '331. The three-dimensional space would have the advantage of making the calculations of speed and angle upon the hitting of the ball more accurate as all three dimensions are taken into account in the calculations, and the visual display would have been more realistic for the same reasons. The step 320 of Fig. 5 (‘331) applied to step S109 of Fig. 13 (‘897) would have the advantage of having the step S110 of Fig. 13 (‘897) correct the player’s position into the landing position of the volleyball, as players outside the ball-strikable range (within arm’s length as applied to a volleyball game) of the volleyball's landing point, would make the game for less skilled players. Such a modification, for example, could be applied at a lower skill level of the volleyball video game for beginning players, and as players become more skilled, they could move up to a skill level where such a correction of player position is not used.

6. As to Claim 6: Claim 6 is rejected for the same reasons as Claim 1, except that the combination would have two or more players, each player, of course, with his or her own input device. ‘897 teaches a player vs. player mode (11:59-63) and two sets of controls (Fig. 1).

7. As to Claims 7, 11, and 15: The controller of ‘335 has a switch (35a, Fig. 3). ‘335 moves the position from a forward position to a backward position or vice-versa

based on the controller's input (17:44 to 43, reflected in image). In the case of volleyball this would be the ball striking position (17:36-43).

8. As to Claim 10: '335 teaches a method for controlling a game displayed on a game machine and played by a player using an input device, comprising generating an acceleration correlation signal when said player actually swings said input device in a real space (Abst.; 16:15-55; 17:36-43). '335 also teaches transmitting said generated acceleration correlation signal to said game machine (Fig. 2a, 5:40-53); '897 displays, by the game machine, a ball on a monitor screen through execution (Figs. 9-10, 11:11:29-34) of a game program in which a CPU player controlled by a computer program plays against said player (player controls one team, CPU controls the other team, 2:54-56, 8:31-36, 11:59-61). '897 calculates a predicted return position of said ball returned by said CPU player, judging whether a current position of said player is in a ball strikable range by comparing said predicted return position (determine ball landing position, S101, Fig. 13) and the current position of said player (display first cursor at landing position, S105; select most suitable player character for first cursor, S106, Fig. 13; distance between first and second cursors less than successful receiving distance, S109, Fig. 13), automatically moving a ball striking position of said player to be approximated to said predicted return position (correct position of player character into position of first cursor, S110, Fig. 13, 13:22-32). '331 determines whether or not the player is within swinging rand to hit the ball (step 320, Fig. 5; 8:28-39). '335 detect whether said input device has been actually swung or not (16:35-48). '331 calculates an initial speed vector of said ball (6:53-62, 8:40-48; steps 328, 330, & 332, Fig. 5) in

which the position of said ball exists in a ball receivable range that is three-dimensionally defined (Figs. 2 to 6, three-dimensional perspective). '335 calculates a position of said ball and acceleration of said input device according to said acceleration correlation signal (7:7-16, Fig. 3; position or displacement induced from acceleration signals, 2:6-10).

9. As to Claim 14: Claim 14 is rejected for the same reasons as Claim 10, except that the combination would have two or more players, each player, of course, with his or her own input device. '897 teaches a player vs. player mode (11:59-63) and two sets of controls (Fig. 1).

10. Claims 8, 9, 12, 13, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over '897, '335, and '331 in view of Cheng (U.S. patent 5,667,220 A).

11. As to Claims 8, 9, 12, 13, 16, and 17: The references cited above do not cite a digitally modulated infrared signal. One of ordinary skill in the art at the time of invention would have been motivated to apply the digitally modulated infrared signal of '220 (Fig. 6; 3:54-65) to the combination of '897, '335, and '331. This would have the advantage of eliminating the signal wire of '335 (Fig. 1) which would tend to get in the way of a player in an action game involving swinging the controller. Such a wired controller would particularly be inconvenient in a tennis game with a swingable tennis racket input device.

Claim Rejections - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claims 10 to 17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. New Claims 10 and 14 are method claims which parallel the previous apparatus claims (in light of the recent Bilski decision), but the claims are not sufficiently tied to an apparatus, such as for example citing how the structure of the apparatus executes the step of the method, or the claims do not cite a transformation of a composition of matter from one form to another. In the gaming art, the former criteria is the one usually used, since transformations of matter are rare. The applicants could for example, cite how the structure of the gaming system, similar to Claim 1 which cite the game machine displaying a ball on a monitor screen, a first calculation unit for calculating the predicted return position, a judgment unit, for judging whether a current position the player is in a ball-strikable range, or a swing detection unit for detecting whether the input device has actually been swung or not. The more steps cited as being actually executed by structure of an apparatus, and the more specific the structure, the better the method claims would be regarding 101. Specific structure could be, for example, a processor of a gaming device, executing steps stored in computer-readable instructions stored on a computer-readable medium.

Response to Arguments

14. Applicant's arguments have been fully considered but they are not persuasive. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Regarding the comments on page 10 that Togami (‘897) does not suggest an input device, the examiner believes that the input device of Tosaki ('335) is sufficiently analogous to the volleyball game of to warrant combination. The instrumented input device is described in the main embodiment as a fishing pole, but the accelerometer inputs are also meant to be used for other games, such as a tennis game using a tennis racket (17:38-42). Togami describes a volleyball game (Abst.). Tennis and volleyball are both analogous games in which players volley a ball over a net against an opponent. Togami in Fig. 13 and Col. 13 describes selecting the nearest player to intercept a volleyball. Such a method would be advantageous in a doubles tennis match to select the nearest tennis player to intercept the tennis ball coming towards the players. The examiner disagrees with the applicant's characterization of step 109 of Togami Fig. 13. Step 109 determines if the character is less than the successful receiving distance, and if so, the character is moved to the ball’s determined landing position in step 110. Saikawa (‘331) as discussed regarding Claim 1 above determines at step 320 of Fig. 5 whether the operation can be performed within the amendable range and if not branches by (A) to step 336 to show a bad swing, and if yes branches to step 332 to display a good swing.

Regarding Togami Fig. 13, if the character were able to intercept the volleyball from its present position, there would be no need for the game to correct the position of the character to the first cursor position in step 110 of Fig. 13. The successful receiving distance is really the maximum distance that the character can move from its present position and still intercept the volleyball in time. The successful receiving distance is not, for example, the character's arm's length which would allow the character to intercept the volleyball without changing position. Step 109 of Togami Fig. 13 determines that the "operation cannot be performed within the amendable range" based on the character's current location, but determines that the character is less than or equal to the maximum distance the character could move from its present position and still intercept the volleyball. Togami thus moves the character's position to that of the volleyball's determined landing location in step 110 if this is the case. What Togami is doing is really similar to what Saikawa is doing in Fig. 5 step 320. Saikawa discloses a tennis game in which game characters intercept a tennis ball (Abst., Fig. 3, 6:38-52). Regarding the comments on Pages 11 and 16, while the player generally controls the volleyball team member (character) with lever L1 (9:21-22), the player control of the character is overridden by the process of Fig. 13 (player character M2 becomes uncontrollable, the player character M2 automatically moves onto the first cursor K1, and the second cursor K2 is fully superposed on the first character K1, 9:25-30). There is also no mention of lever input in the description of Togami Fig. 13's process in col. 13. This would especially be true in the modes in which the player is playing against the CPU's volleyball team and the CPU is automatically controlling its volleyball team

according to the process of Fig. 13. The examiner respectfully disagrees with the applicant's interpretation that the lever must be first moved by the player to intercept the ball. Regarding the remarks on Page 13, Togami '897 automatically moves a ball striking position of the player to be approximated to the predicted return position in which the judgment unit judges that the current position is out of the ball strikable range. Again, for the reasons outlined above, the successful receiving distance of '897 is not the same as the strikable range of the claims. If the character (volleyball team member of '897) were in ball strikable range (essentially within arm's length of the ball's anticipated landing position), there would be no need for the player to move to a new position to intercept the ball. The examiner respectfully disagrees with the applicant as to the claims' condition for allowance.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

16. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Hoel whose telephone number is (571) 272-5961. The examiner can normally be reached on Mon. to Fri., 8:00 A.M. to 4:30 P.M.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo, can be reached on (571) 272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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